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GB 1428157

GB 1420638

GB 1359852

GB 1284898

GB 1275697

GB 1242298

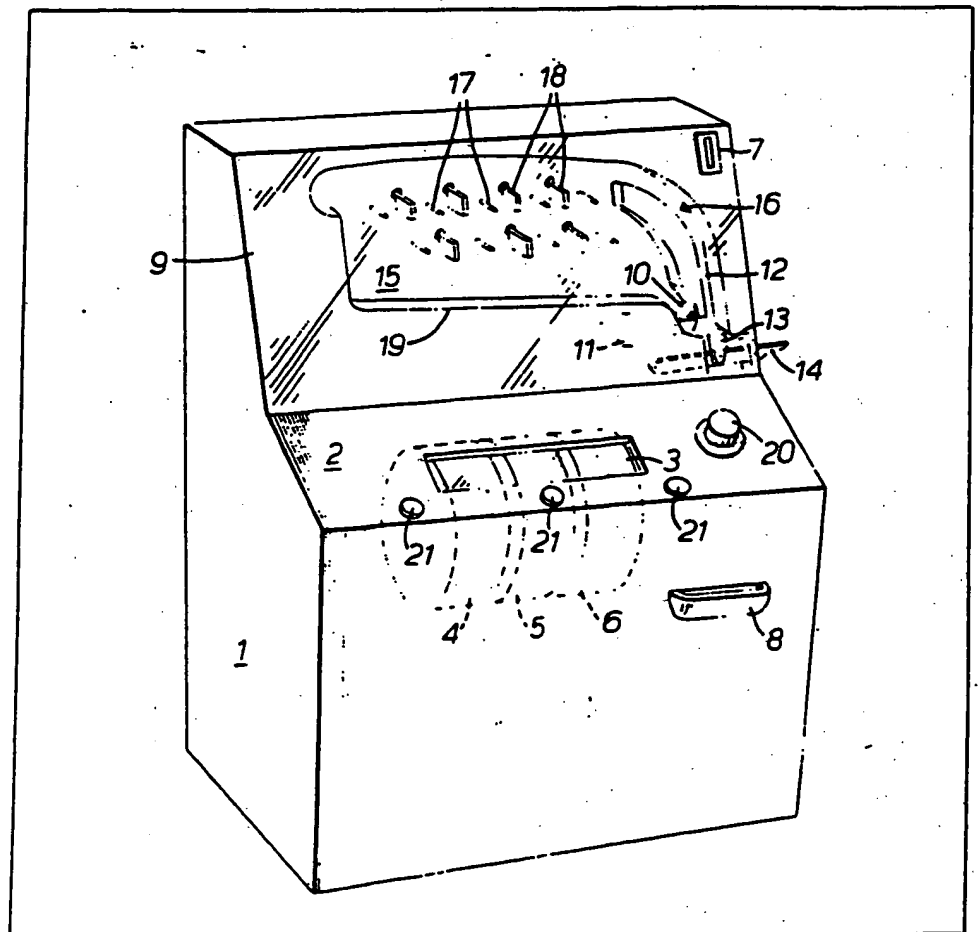
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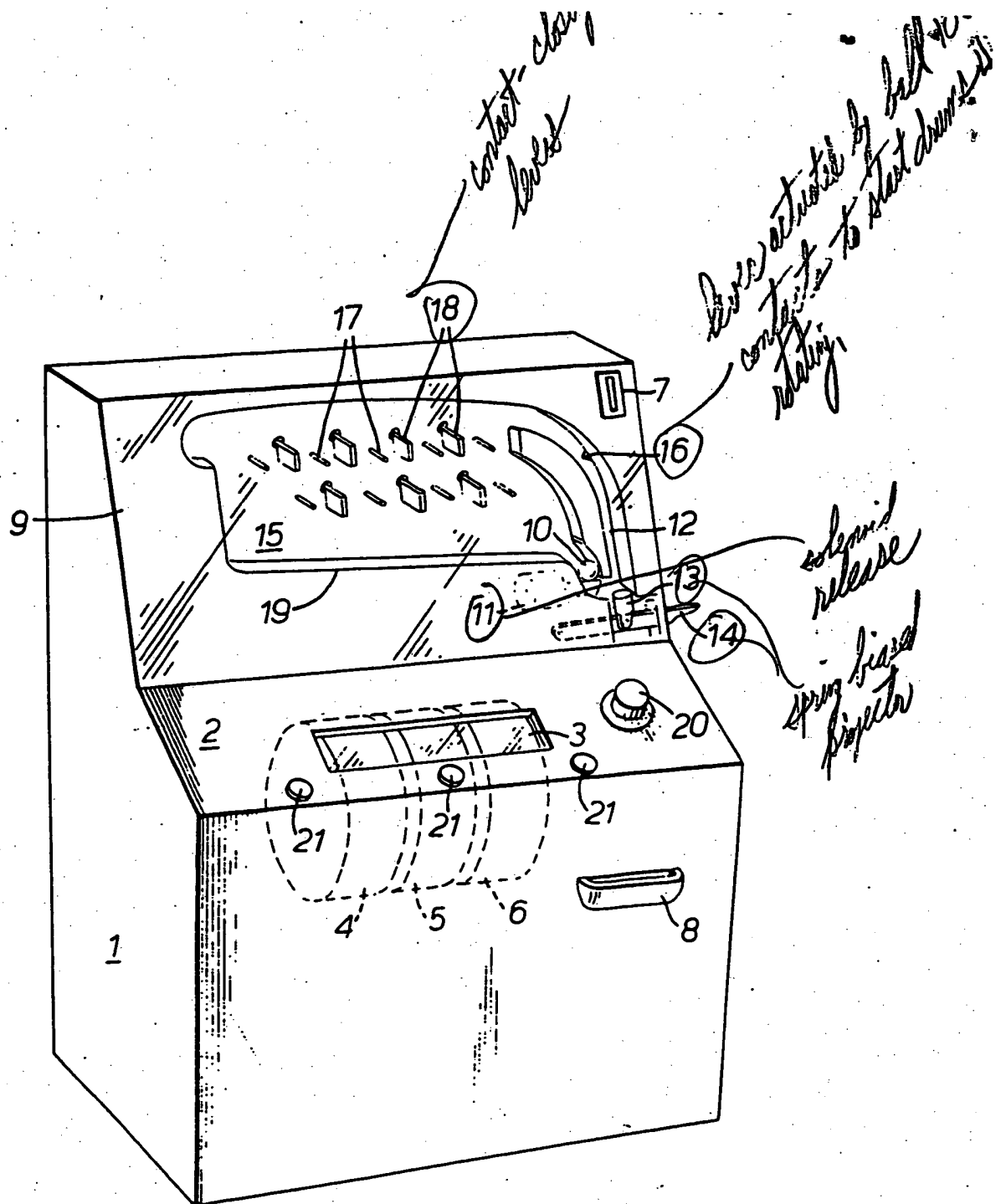
(54) Fruit machine

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(57) A "fruit" machine is provided with an additional game playing apparatus involving a game of skill, the operation of the "fruit" machine being controlled or influenced by the course or outcome of the game. The game may be in the form of a bagatelle using a ball 10 or a token or coin which is arranged to strike one or more obstacles 17 when it is launched over a course, one or more of the obstacles being associated with switch means 18 which when operated influence or control one or more functions of the "fruit" machine.

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## SPECIFICATION

### Fruit machine

5 This invention relates to "fruit" machines, that is to say machines in which, on acceptance by the machine of a coin or token, a number of symbol-exhibiting devices is prepared for a sequence of symbols, one from  
10 each device, to appear in a window, the symbol sequence of each device being arrested in a more or less random manner, and which secure an advantage to the player when a pre-determined combination of symbols is  
15 caused thus to be present in the window. the advantage may consist of some kind of prize, for example money or tokens may be paid out by the machine, or it may consist of an opportunity to play again without payment.  
20 The operation of such a machine may be mainly mechanical and in machines currently available it is usual for various controls to be applied to the movement of symbols past the window and/or to the arresting of such sequence. Such a control may be of the kind  
25 known as a "variator" which has the effect of changing the odds against a winning line of symbols appearing in the window when the machine stops. Other controls may be in the  
30 form of holds applied to some of the devices which appear to the player to exhibit a symbol or combination of symbols which would be worth while retaining in the hope of a complementary symbol or symbols appearing in the  
35 other positions when the machine stops.  
According to the invention a fruit machine is provided with additional game playing apparatus, the operation of the fruit machine being controlled or influenced by the course  
40 or outcome of the game. In a particular form of the invention the additional game playing apparatus is in the form of a bagatelle in which a projectile is released for play on acceptance by the machine of a coin or token  
45 inserted by the player. The projectile may be launched automatically either simultaneously with acceptance by the machine of the coin or token, or it may be launched manually by the player by the usual spring-loaded plunger. In  
50 the latter case the player may be able to determine by the skill he exercises in operating the plunger, which functions of the machine are controlled, and thus influence the outcome of the operation of the machine.  
55 The influence that the additional game playing apparatus has on the functioning of the machine may take various forms. For example, in the case of a "jack-pot", payment may be made solely as a result of the projectile  
60 striking a particular obstruction, or it may be as a result of a particular combination of symbols in conjunction with a particular obstruction being struck, or yet again the payment on a combination of symbols may be  
65 inhibited by striking some obstructions and

not others.

The sensing means associated with the obstructions, in the case where the additional game playing apparatus is in the form of a  
70 "bagatelle", may consist of electric contacts or microswitches, but other presence detectors or impact or vibration sensors may be used.

In order to explain the operation of the invention, a simple form thereof will now be  
75 described with reference to the accompanying drawing which shows:-

A perspective view of a combined fruit machine and game playing apparatus.

In the drawing a fruit machine comprises a  
80 casing 1 having a sloping display panel 2 with a window 3 behind which are arranged for rotation three drums 4, 5 and 6, each carrying around its circumference a series of symbols such as an apple, an orange, a  
85 banana etc. A coin slot 7 is associated with conventional internal means (not shown) for accepting or rejecting a coin or token according to whether the coin or token is genuine. On acceptance, the drums 4, 5 and 6 can  
90 have rotary motion imparted to them either manually or electrically. Rotation of the drums is arrested by further conventional means (not shown) which stops each of the drums so that one of its symbols appears in the window 3.  
95 The machine is arranged to "pay out" a prize in the form of money or tokens delivered into a coin chute 8 when certain combinations of three symbols appear, when the machine stops, in the window 3.  
100 Arranged on a further sloping face 9 of the machine, and taking the place of, or forming part of, the usual "flash", is a game playing apparatus in the form of a game of "bagatelle". In this, a projectile 10 in the form of a  
105 metal ball is released by withdrawal of the solenoid 11 on acceptance by the machine of a coin inserted into the slot 7, and rolls to the bottom of a vertical chute 12 which has a firing plunger 13 operated by a spring-loaded  
110 lever 14. The player depresses and then releases the lever 14 so that the plunger 13 propels the ball 10 up the chute 12 into the play area 15. In passing along the chute 12 the ball may move a lever 16 which closes a  
115 pair of contacts (not shown) that control a circuit which imparts motion to the drums 4, 5 and 6. When the ball 10 enters the play area 15 it descends through a number of obstacles, in this case indicated by pins 17.  
120 Associated with some or all of the pins 17 are levers 18, so arranged that if the ball strikes one of the pins 17 it is forced to move the adjacent lever 18 which then closes a pair of contacts (not shown). The ball 10 finally arrives at a sloping track 19 down which it runs to its initial position.  
125 The contacts that are closed by the levers 18 exercise various control functions on the machine, or may merely condition the machine for such control functions to be exer-

cised by the player. One of them may, for example, condition a "nudge" circuit, so that the player can, if he then wishes, operate the "nudge" circuit by a manually operable switch 20. Another of them may be used to determine whether the machine will pay out a "jack-pot", either directly or upon a subsequent appearance in the window 3 of a predetermined combination of symbols.

Hold buttons 21 may be provided, and these may operate in the usual way, or may be operable only after certain of the levers 18 in the play area 15 have been struck by the ball 10.

If desired, the operation of the drums 4, 5 and 6 may, instead of preceding the arrival of the ball 10 in the play area 15, take place only after the ball has traversed the play area, and in that event it may be conditioned by the ball striking the sloping track 19. As with current machines, a number of playing operations may be purchased with a single coin or token, and this can be arranged by inhibiting the return of the solenoid 11 for the required number of times.

The average time taken for the ball to traverse the play area 15 is a function of the number, arrangement and type of obstacles, but preferably is kept quite small by arranging the angle of the play area to be near the vertical. This fortunately corresponds to the shape of cabinet currently employed for fruit machines, where the play area can occupy the space usually taken by what is known as the "flash".

Although the invention has been described in relation to a play area where some physical correlation exists between a projectile and various obstacles, it will be appreciated that this may if desired be simulated on a cathode ray tube or other display, when either the projectile or the obstacles may be controlled by the player, and the other fixed or moved over a fixed course, or moved automatically in a random manner. Suitable signals for influencing or controlling the machine may be extracted by suitable electronic circuitry, for example by counting circuits which relate two events by their distance along two co-ordinates.

The machine is thus capable within the scope of the invention of a very large number of possible variations, but in essence it always involves the influencing of a machine of the general fruit machine type by the course or outcome of an additional game playing apparatus.

#### CLAIMS

1. The combination of a fruit machine as herein defined, with a game playing apparatus, wherein the operation of the fruit machine is controlled or influenced by the course or outcome of the game.

2. The combination according to claim 1,

wherein the game is of the general type known as bagatelle.

3. The combination according to claim 2, wherein a ball is used as a projectile under the control of the player and pursues a course determined at least in part by various obstacles.

4. The combination according to claim 3, wherein the obstacles or some of them have associated sensing means for determining the presence of the projectile and for feeding a corresponding signal to the machine.

5. The combination according to claim 4, wherein the sensing means are in the form of levers that operate electric contacts.

#### CLAIMS (19 Dec. 1980)

1. The combination of a fruit machine as herein defined, with a game-playing apparatus involving a game of skill, wherein the course or outcome of the game of skill is used to control or influence the operation of the fruit machine.

2. The combination according to claim 1, wherein the game of skill is of the general type known as bagatelle.

3. The combination according to claim 1, wherein the obstacles or some of them have associated sensing means for determining the presence or passage of the projectile and for feeding a corresponding signal to the fruit machine.

4. The combination according to any one of the preceding claims, wherein a signal derived from the game-playing apparatus is used to make available on the fruit machine an additional facility such as "nudge", or a "hold" or the adjustment of a variator.

5. The combination according to any one of the preceding claims, wherein the arrangement of the game-playing apparatus is such that a special signal resulting from the exercise by the player of special skill can be used to cause the pay-out of a prize directly, without further operation of the fruit machine.

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